

1993

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Recommended Citation

Erin O'Hara O'Connor, *Social Restraint or Implicit Collusion?: Toward a Game Theoretic Analysis of Stare Decisis*, 24 *SETON LAW L. REV.* 736 (1993),

Available at: <https://ir.law.fsu.edu/articles/435>

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SOCIAL CONSTRAINT OR IMPLICIT COLLUSION?: TOWARD A GAME THEORETIC ANALYSIS OF STARE DECISIS

Erin O'Hara*

I. INTRODUCTION

For well over a century, legal scholars have focused their attention on legal precedent and *stare decisis*,¹ a rule which purportedly requires judges to decide new cases in accord with relevant preexisting precedent.² Despite an extensive and rich literature on the social costs and benefits of *stare decisis*,³ no scholar has satisfactorily

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¹ See, e.g., JEROME FRANK, *LAW AND THE MODERN MIND* 148-58 (6th ed. 1949); K.N. LLEWELLYN, *THE BRAMBLE BUSH, ON OUR LAW AND ITS STUDY* 59-76 (1951); RICHARD A. WASSERSTROM, *THE JUDICIAL DECISION* 39-83 (1961); Jan G. Deutsch, *Precedent and Adjudication*, 83 *YALE L.J.* 1552 (1974); Ronald A. Heiner, *Imperfect Decisions and the Law: On the Evolution of Legal Precedent and Rules*, 15 *J. LEGAL STUD.* 227 (1986); Earl Maltz, *The Nature Of Precedent*, 66 *N.C. L. REV.* 367 (1988); Frederick Schauer, *Precedent*, 39 *STAN. L. REV.* 571 (1987); Martin Shapiro, *Toward a Theory of Stare Decisis*, 1 *J. LEGAL STUD.* 125 (1972).

² Harry W. Jones, *Dyson Distinguished Lecture: Precedent and Policy in Constitutional Law*, 4 *PACE L. REV.* 11, 18 (1983). *Stare decisis* is the short form of "*stare decisis et non quieta movere* [which means] stand by the past decisions, and do not disturb settled things." *Id.* *Stare decisis* also involves following a precedent even though the previous decision may be wrong or at odds with the current judge's views. See Schauer, *supra* note 1, at 576; WASSERSTROM, *supra* note 1, at 54; Max Radin, *Case Law and Stare Decisis: Concerning Prajudizienrecht in Amerika*, 33 *COLUM. L. REV.* 199, 200 (1933). One author has commented that:

If a court follows a previous decision, because a revered master has uttered it, because it is the right decision, because it is logical, because it is just, because it accords with the weight of authority, because it has been generally accepted and acted on, because it secures a beneficial result to the community, that is not an application of *stare decisis*. To make the act such an application, the previous decision must be followed because it is a previous decision and for no other reason

Id.

³ See William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 *J.L. & ECON.* 249 (1976); Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3 *J. LEGAL STUD.* 257 (1974); Lawrence E. Blume & Daniel L. Rubinfeld, *The Dynamics of the Legal Process*, 11 *J. LEGAL STUD.* 405 (1982);

answered an important preliminary question: Why would any rational judge willingly limit her own discretion by following precedents?

The common legal assumption, that the doctrine of *stare decisis* is a rule society has imposed on the judiciary,⁴ is unsatisfying for several reasons. First, in most *stare decisis* jurisdictions, no law mandates the rule.⁵ Second, because most people know little about judges' decision-making, they are poor guardians of *stare decisis*. Finally, federal judges with life tenure and guaranteed salaries follow *stare decisis* even though they are largely insulated from societal pressures.

Richard Higgins and Paul Rubin attempted to link *stare decisis* to external political pressures.⁶ They posited that judges follow precedents to maximize the likelihood that they will be promoted to higher paying positions. When they tested a major implication of their hypothesis—that older judges would be less constrained than younger judges—by observing the decision-making behavior of United States District Court judges in the Eighth Circuit, they found no supporting evidence.⁷

This Article suggests an alternative, internal rationale for why judges follow precedents. The Article posits that *stare decisis* has evolved as a result of judges' preference for the doctrine.⁸ The

William O. Douglas, *Stare Decisis*, 49 COLUM. L. REV. 735 (1949); Herman Oliphant, *A Return to Stare Decisis*, 14 A.B.A. J. 71 (1928); *Burnet v. Coronado Oil & Gas Co.*, 285 U.S. 405 (1931).

The primary social cost of *stare decisis* is the entrenchment of bad decisions. The social benefits of the doctrine fall into three categories: (1) certainty and predictability; (2) fairness or consistency; and, (3) judicial efficiency. See, e.g., ARTHUR GOLDBERG, *EQUAL JUSTICE, THE WARREN COURT ERA OF THE SUPREME COURT* 72-76 (1971); John Paul Stevens, *The Life Span of a Judge-Made Rule*, 58 N.Y.U. L. REV. 1, 2 (1983). The magnitude of both the costs and the benefits will depend on how effectively judicial decision-making is constrained.

⁴ See, e.g., THE FEDERALIST No. 78, at 471 (Alexander Hamilton) (Clinton Rossiter ed., 1961) ("To avoid an arbitrary discretion in the courts, it is indispensable that they should be bound down by strict rules and precedents which serve to define and point out their duty in every particular case that comes before them . . ."); Jones, *supra* note 2, at 26.

⁵ Michigan may be an exception to this rule. Prompted by social disapproval of inconsistent decisions by the Michigan Court of Appeals, the Michigan Supreme Court entered an order which provided that a panel of the Court of Appeals must follow prior Court of Appeals decisions. See generally Taylor Mattis, *Stare Decisis Within Michigan's Court of Appeals: Precedential Effect of its Decisions on the Court Itself and on Michigan Trial Courts*, 37 WAYNE L. REV. 265 (1991).

⁶ Richard S. Higgins & Paul H. Rubin, *Judicial Discretion*, 9 J. LEGAL STUD. 129, 130-31 (1980).

⁷ *Id.* at 137-38.

⁸ In contrast, at least one commentator views the emergence of *stare decisis* in the

Article begins with an assumption that judges are primarily motivated by a desire to impose their normative views, beliefs, and mores on the society in which they live. Using simple tools from game theory, it shows that where judges' normative views differ, an agreement to follow each other's precedents eliminates nonproductive competition that would result if judges were unconstrained in their efforts to have their own, rather than other judges', normative views define the legal consequences of individual behavior. As a result, judges are better off under a rule of *stare decisis*. This Article also considers what a *stare decisis* agreement might entail and how tacit collusion by judges might survive over time. Although the model presented is abstract and somewhat unrealistic (because it peels away much of the detail of judicial decision-making), this Article attempts to expose a nugget of truth about the evolution and persistence of *stare decisis*. Finally, the informal model predicts some specific phenomena found in our legal systems and is, to some extent, empirically testable.

II. IN THE BEGINNING: WHY JUDGES WOULD AGREE TO BE BOUND BY OTHER JUDGES' DECISIONS

Imagine a society that has grown large enough to need a formal legal structure to enforce behavioral norms and settle disputes between individuals in the society. A judiciary is formed, consisting of a number of trial court judges who decide cases that arise. A party dissatisfied with the trial outcome can appeal to appellate judges for review. To discuss the basic trade-off an appellate judge confronts during the decision-making process, suppose initially that one judge is appointed to decide all appeals.

A. *One Judge Decides All Appeals*

This Article assumes not only that the appellate judge is rational, but also that he will be motivated primarily by a desire to impose his normative views on the society in which he lives.⁹ That

United States as a mere adherence to English tradition which the judges and observers took for granted. See Jones, *supra* note 2, at 17 (asserting that early American judges reasoned by reference to precedent simply because it was ingrained in them by their training and experience).

⁹ William Landes and Richard Posner suggested this motivation several years ago. Landes & Posner, *supra* note 3, at 272-73. They submitted that:

the independent judge derives utility by imposing his policy preferences on the community. This approach, which is broadly consistent with the ordinary assumptions of self-interested behavior employed in economic analysis, is helpful in explaining why a judge might want to create prece-

is, while deciding appeals, the judge prefers that society reflect his own normative views, beliefs, and mores. Perhaps he can not always effectuate perfectly his notion of the "Good Society,"¹⁰ but he will, where possible, make decisions according to his own normative views. Even a judge who truly believes he is simply making the "best" decisions for society will evaluate the legal options by comparing the extent to which they each reflect his own values.¹¹

In making his decisions, the appellate judge affects individual behavior because he defines the legal consequences of particular actions. He also affects the decisions of lower court judges provided he can make it costly for them to contravene his decisions.¹² Consequently, a self-interested judge who faced no opportunity costs would maximize his expected positive influence on societal behavior, where "positive" means that the outcome of the cases accord with his own normative views.

Normally, however, a judge's resources, such as time, are limited. That is, the more time he invests gathering information, thinking about the optimal decision, and writing an opinion sufficiently unambiguous to clearly affect behavior,¹³ the longer the pe-

dents rather than just resolve disputes: to the extent it is followed in subsequent decisions, the precedent will affect more behavior.

Id.

¹⁰ For example, the judge's normative views might differ so drastically from the values of other citizens that he will be removed from office or will be unable to enforce his decisions. Moreover, an appellate judge may face considerable legislative and constitutional restraints. Additionally, competition with other methods of dispute resolution may force him to take prevailing societal norms into account. *See generally* William M. Landes & Richard A. Posner, *Adjudication as a Private Good*, 8 J. LEGAL STUD. 235 (1979) (discussing public court competition with private adjudication and non-adjudicative substitutes); *see also* Robert D. Cooter, *The Objectives of Private and Public Judges*, 41 PUB. CHOICE 107 (1983).

¹¹ I am not making a normative statement here. An example of such a normative statement is found in BENJAMIN N. CARDOZO, *THE PARADOXES OF LEGAL SCIENCE* 55 (Greenwood Press 1970) ("A judge is to give effect in general not to his own scale of values, but to the scale of values revealed to him in his readings of the social mind."). I am merely asserting that regardless of how a judge *should* make his decisions, he nevertheless desires a legal rule which reflects his personal values.

¹² One way to impose costs on a lower court judge is to remand a case to that judge. By contravening the appellate judge's decision, the lower court judge must do more work and does not successfully achieve a different outcome. Additionally, the appellate judge can humiliate the lower court judge by writing a scathing opinion when he reverses and remands. *See, e.g.,* Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 525, 544, 547, 549, 550, 553, 554 (1978) (alleging that a decision by Judge Bazelon of the D.C. Circuit "seriously misread," was a "serious departure" from, and "fundamentally misconceive[d]" a very basic tenet of administrative law which the Supreme Court had previously made abundantly clear and explicit).

¹³ For an example of the need to write clear opinions in the administrative law

riod of time before he affects behavior with respect to issues raised in other pending cases.¹⁴ This represents an opportunity cost to the judge, because he would presumably prefer people to behave according to his normative views sooner.¹⁵ Consequently, the present value of having society behave favorably decreases as the period of time before imposition of his normative views increases.

With only one judge deciding appeals, we expect a relatively certain and predictable legal system.¹⁶ Two considerations contribute to this result. First, the judge will be deciding cases in accord with his previous rulings in much the same way that many drivers unflinchingly stop at red lights even at three o'clock in the morning. Just as the driver prefers to be detained for a few moments rather than think about whether there are police cars in the vicinity, the judge prefers not to think through a legal issue every time it arises in his courtroom. Indeed, he prefers not to re-litigate the issue even though there is some probability that he initially decided the issue "incorrectly," in the sense that the initial determination fails to further his normative views effectively.

The second reason to expect a relatively certain and predictable legal system is that a judge often prefers to write opinions stating the legal consequences of a broader range of behavior than that involved in a particular case. In this way he can influence a broader range of activities with each opinion. Assume, however, that within this system there is an external constraint upon the breadth of the judge's opinion somewhat akin to the case or controversy requirement of Article III courts in the United States.¹⁷ More specifically, assume the judge can only decide those issues

context, see Colin S. Diver, *The Optimal Precision of Administrative Rules*, 93 YALE L.J. 65, 67 (1983) (enumerating that a rational rulemaker will (1) "want to use words with well-defined and universally accepted meanings within the relevant community"; (2) want his rules to be "applicable to concrete situations without excessive difficulty or effort"; and, (3) "care about whether the substantive content of his message produces the desired behavior").

¹⁴ In the model set out below, every party unsatisfied with the trial court's judgment has a right of appeal and the make-up of the appellate bench is stable. If, instead, the judge had discretion not to hear appeals or the appellate bench were expanded because of congestion, then spending more time deciding each case might mean that the judge will hear fewer appeals. His net ability to impose his normative views would then be reduced.

¹⁵ In addition, the judge enjoys leisure, another opportunity cost. At some point the judge derives greater utility from non-professional activities than from influencing additional aspects of his society's behavior.

¹⁶ Of course, this certainty and predictability will depend on the judge's consistency.

¹⁷ See U.S. CONST. art. III, § 2.

that arise in the dispute before the court.¹⁸ For example, the judge will be precluded from enunciating principles of patent law in an appeal of a bankruptcy case which does not involve a patent dispute.

Even within this external constraint, the judge faces a trade-off. The judge's principal goal is to influence behavior, and the broader the language of his opinion the wider the range of behavior he can influence with it. The problem, however, is that the broader his opinion, the greater the likelihood that he is including fact situations in his opinion that he would prefer to exclude.¹⁹ In other words, he increases the likelihood of creating incentives for members of society to behave in ways which are actually contrary to his normative views.²⁰ Although the judge can later abandon that part of his opinion which creates undesirable incentives, he prefers to avoid encouraging such behavior in the interim.²¹

For this reason, once the judge has determined the breadth of his opinion, he has an incentive to carve out some narrower portion of the opinion as his holding. While the opinion as a whole indicates how he might later rule in future cases raising a similar issue, the judge's holding indicates how he will in fact decide those cases which fall within his holding. When these cases are appealed,

¹⁸ In the federal court context, see GEOFFREY STONE ET AL., CONSTITUTIONAL LAW 76 (1986) (stating that case or controversy requirement is intended to ensure that issues will be "resolved only in the context of concrete disputes, rather than in response to problems that may be hypothetical, abstract, or speculative"). The case or controversy requirement was first implicated by the Supreme Court in *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803) (declaring that Article III implies that the Constitution and laws are to be evaluated in the context of the particular case). It has been argued, however, that a broad reading of *Marbury* supports at least constitutional adjudication as a special function of the Court rather than merely as an "incidental byproduct" of private litigation. GERALD GUNTHER, CASES AND MATERIALS ON CONSTITUTIONAL LAW 1606 (10th ed. 1980). Nevertheless, for purposes of the model, the external limitation will preclude the determination of issues which do not arise in the dispute.

¹⁹ For example, if the judge asserts that free speech is so important that all pornography is to be legally protected, then child pornographers will interpret his opinion to mean that they are protected as well, even though the judge would have child pornographers punished.

²⁰ See Ehrlich & Posner, *supra* note 3, at 262 ("The more (efficiently) precise and detailed the applicable substantive standard or rule is, the higher is the probability that the activity will be deemed illegal if it is in fact undesirable . . . and the lower is the probability that the activity will be deemed illegal if it is in fact desirable.").

²¹ This is especially true for risk averse individuals who will invest greater resources to avoid unfavorable legal consequences indicated by the judge's opinion. *Id.* If the judge thinks there is a fine line between undesirable and desirable activities, he may want to write a narrow opinion to avoid deterring desirable behavior. If the opinion is too narrow to include such behavior, individuals are less likely to invest these additional resources to avoid legal consequences that the judge will not actually impose.

the judge will apply his holding rather than re-litigate the issue, absent some substantial indication that the holding is "incorrect." As a result, fewer litigants will bring appeals.²² Here, too, the judge faces a trade-off. On the one hand, he prefers to make his holding broader to discourage as many appeals as possible. On the other hand, however, he prefers not to commit himself to a particular ruling as the facts of future cases become less and less similar to the facts of the present case.²³

Thus, when one judge decides all appeals, he will write opinions to maximize his influence on societal behavior net of at least temporary costs of over-inclusion and the opportunity costs of investment in writing carefully decided opinions. In addition, the legal consequences of behavior treated in the judge's holdings will change only when one of two situations results.²⁴ First, the judge may believe there is a significant probability that he decided the previous case or delineated the scope of the holding "incorrectly." Second, social, economic, or technological changes may have rendered the judge's precedent obsolete.²⁵ In either case, the subjective probability that a change in the prevailing legal rule is needed must be high enough to compel the judge to invest the effort necessary to reconsider the issue. In short, the effect of the judge's decision-making is an imperfect *stare decisis*.²⁶ The judge will follow his own holdings until there is a sufficiently high probability that a holding should be modified or replaced.²⁷ In addition, the nature

²² Assuming, of course, that the judge can enforce his own precedents by making it costly for the lower courts to ignore or reject them.

²³ The acuteness of this trade-off will vary across issues. Some issues lend themselves to general rules, while others are more appropriately decided via ad hoc decision-making. Because the judge wishes to minimize the costs of over-inclusion, he is likely to formulate a more narrow rule or standard where the costs of over-inclusion are high. See Ehrlich & Posner, *supra* note 3, at 271 (suggesting that if particular legal conduct is not considered socially very valuable, then the costs of over-inclusion will decrease). Moreover, the problems of over-inclusion increase as the heterogeneity of the conduct intended to be affected becomes greater. *Id.* at 270.

²⁴ Of course, individuals do not always know the legal consequences of their actions. Rather, the more closely contemplated behavior resembles the previous facts, the better they can predict the legal consequences of that behavior.

²⁵ Landes & Posner, *supra* note 3, at 268-69. Landes and Posner analogize precedent to capital stocks. *Id.* Like other forms of capital, a precedent tends to depreciate with social, economic, and technological changes. At some point, the old precedent becomes obsolete and should be replaced. *Id.*

²⁶ I use the term imperfect *stare decisis* because the judge does not inevitably follow his own precedents forever. Following the same precedent, no matter what, would be perfect *stare decisis* and would not characterize the judge's behavior unless the society could both impose and enforce a rule of perfect *stare decisis*.

²⁷ The judge will reconsider the holding if the expected benefits of re-litigating are greater than the expected costs of re-litigation. The expected benefits are

of the judge's preferences will generate a natural limitation on the breadth of both his opinions and his holdings.²⁸

B. Two Judges Decide All Appeals Without Agreement: The Problem of Nonproductive Competition

Now that the basic trade-offs inherent in a judge's decision-making have been identified, the model can be extended to include tensions that an appellate judge confronts when interacting with other appellate judges. For simplicity, assume that the appellate court is expanded to two judges, Ann and Bert, with equal and independent authority to decide appeals. Assume also that each judge serves on the court in perpetuity. Each case is randomly assigned to one of the judges, so that each judge has a one-half probability of deciding each appeal. What can be said about their interaction?

First, if Ann and Bert shared perfectly identical normative views, then the legal system would function consistently with a rule of *stare decisis*. Bert would always follow Ann's precedents because he would have formulated the same precedent if initially given the opportunity. Thus, although the rationale for following Ann's precedents would not be the same (Bert is not following the precedents merely because they came before), the desired effects of *stare decisis* would be achieved.²⁹ Indeed, if the two judges shared perfectly identical views, the appellate court would function as though only one judge decided appeals.

It follows that even if the judges disagreed about some legal issues, where Ann and Bert in fact agreed, the effects of *stare decisis* will be obtained. That is, where Ann thought that Bert's previously generated rule is correct because it affirms her own normative views, she will ratify it in her own decisions.

In addition, some specialization should increase judicial efficiency. For example, if Bert is more knowledgeable about patent law, Ann may decide to follow his patent decisions. In addition, if Ann knows more about bankruptcy, Bert may decide to follow her

equivalent to the expected value of the judge's increased ability to incorporate his normative views into the legal system multiplied by his subjective probability that a change in the legal rule will result in an improved incorporation of his normative views. The expected costs of re-litigation include the opportunity costs to the judge of the increased effort necessary to change the governing legal rule.

²⁸ The judge's opinion and holding are presented more formally in Part IV A.

²⁹ Here, too, *stare decisis* is imperfect because the judges may later modify or replace their precedents. If their views are identical, then both would support the change.

decisions. Specialization can be predicted when the benefits to a judge from influencing behavior in a particular realm, minus the investment costs of technical expertise, are lower than the benefits she obtains from influencing other behavior.³⁰ When this is true, a judge may defer to a judge with greater technical expertise (or one who derives greater benefits from influencing that behavior). Thus, to the extent specialization evolves or the judges' normative views coincide, some judicial efficiency results even without an agreement between the appellate judges to follow each other's precedents.

Where their normative views differ without specialization, however, the judges will engage in nonproductive competition. To illustrate, suppose that in period 1 Ann and Bert each decide one case, each presenting a single issue for determination. Assume that deciding an "issue" means that each opinion a judge writes in effect decides the same number of cases or disputes, and that the judges are equally concerned about the disposition of each issue. Suppose further that each judge disagrees with the other's precedent. Neither judge will follow the other's decision because each prefers to impose his own normative views instead.

Over the course of several periods, additional issues will generate disagreement between the judges. Each of these issues could be represented by one box in a "grid of disagreement." If an issue is decided according to Ann's normative views, then the box will contain an X. Conversely, if the issue is decided according to Bert's normative views, then the box will contain an O. Ann prefers that each of the boxes in the grid be covered with an X, for then the legal system perfectly reflects her normative views. For the same reason, Bert prefers that each of the boxes in the grid be covered with an O. Consequently, when these issues again arise in appeals assigned to Ann, she will replace Bert's O's with X's. When Bert is assigned appeals implicating these issues, he will replace Ann's X's with O's.

This behavior will continue *ad nauseam*, with the net result that neither Ann nor Bert is any better at influencing behavior. Fifty percent of the cases raising issues over which they disagree will be decided with an X, according to Ann's normative views, and the other fifty percent will be decided with an O, according to Bert's normative views. At the same time, Ann and Bert will be expending effort hearing and deciding these cases as they compete against

³⁰ Alternatively, the judges might trade types of cases (e.g., patent for bankruptcy) if they were permitted to communicate and trade appeals.

each other in a race to place more X's or O's on the grid. Thus, with no agreement between the judges limiting their discretion, their interaction would be plagued with nonproductive competition.

This nonproductive competition generates two predictions. First, the trial judges' decisions will be unconstrained, for no one rule governs these issues. Trial judges can defensibly choose to follow either Ann's or Bert's rules. Second, nonproductive competition will create many appeals. That is, parties have an incentive to raise these issues at the trial level, and, not knowing *ex ante* which judges will hear their appeal, losing parties have every incentive to subsequently use these issues as the basis for an appeal. These losing parties will always have a 50-50 chance of ultimately winning their cases on appeal. The judges' desire to reduce appeals by eliminating the nonproductive competition drives the remaining analysis.

C. *Avoiding Nonproductive Competition*

By agreeing to follow each other's precedents, the judges could eliminate this nonproductive competition.³¹ If the judges' agreement was perfectly and costlessly enforced, the judges would both be better off. Under such an agreement, each appellate judge would maintain the same net effect on societal behavior. Although Ann may write fewer precedent-setting opinions than Bert during a given day or week, over several periods the law of large numbers predicts that Ann and Bert will each set the same number of precedents. Because the model assumes that each precedent-setting opinion decides the same number of cases or disputes, setting an equal number of precedents implies that Ann's normative views will decide the same number of cases as will Bert's normative views.³² Thus, although they have limited their own in-

³¹ The model differs fundamentally from Lewis Kornhauser's work on judicial decision-making because it adopts a rule-bound rather than a result-bound approach to adjudication. See Lewis A. Kornhauser, *Modelling Collegial Courts I: Path Dependence*, 12 INT'L REV. L. & ECON. 169 (1992); Lewis A. Kornhauser, *Modelling Collegial Courts. II. Legal Doctrine*, 8 J. L., ECON. & ORG. 441 (1992). For purposes of the model in this Article, a precedent will include both the holding or rule presented in an opinion, as well as the language of the opinion itself. For reasons which will become apparent later, only the holding will be binding on a judge in the sense that declining to follow it will be considered a violation of *stare decisis*. The non-binding language constitutes persuasive precedent: it states an argument for applying particular legal consequences to behavior not covered by the holding. A judge failing to follow this "dicta," however, will not suffer any negative consequences from his colleagues.

³² The assumption that each precedent-setting opinion decides the same number

dividual discretion, fifty percent of the cases and precedents would still be decided according to each judge's normative views.³³

By eliminating nonproductive competition, not only is neither judge any worse off in his ability to impose his normative views on society, but the judges can lighten their workload. First, with only one rule governing each issue, fewer disputes will arise because members of society will adjust their behavior to avoid litigation costs and legal consequences. Second, where disputes do arise, adversaries are more likely to settle because the expected legal result is more certain.³⁴ Third, assuming that it is costly for a lower court judge to contravene a clear precedent,³⁵ the lower courts will be constrained to make rulings consistent with the governing precedents. Finally, where cases are fully litigated at the trial court level, losing parties will bring fewer appeals because the appellate judges will be constrained by the same rules governing the lower court's rulings.

When a losing party nevertheless appeals a trial court ruling concerning an issue governed by appellate court precedent, the appellate judge saves time in yet another way. Instead of expending effort attempting to implement that legal rule which will best effectuate his own normative views, he simply applies the existing precedent. Because the litigant who stands to gain from applica-

of cases or disputes is unrealistic and was imposed merely to facilitate the exposition. The number of cases or disputes that are governed by a precedent will depend both on the breadth of the precedent set and the frequency of the behavior addressed by the precedent. The law of large numbers, however, predicts that even though a single precedent-setting opinion written by Ann may decide more cases or disputes than a single precedent-setting opinion written by Bert, over several periods Ann's precedent-setting opinions will, on average, decide the same number of cases or disputes as will Bert's precedent-setting opinions.

³³ Of course, the assumption that the judges are equally concerned about the outcome of each issue is also unrealistic. In any given month Ann may write precedent-setting opinions governing only issues about which she is not particularly concerned, whereas Bert may write several precedent-setting opinions about which she cares very much. Here too, however, the law of large numbers predicts that over several periods Ann will decide just as many issues about which she cares strongly as she will forfeit to Bert under their agreement. Bert will also decide as many issues about which he cares strongly as he will end up forfeiting to Ann.

In addition, if the judges can communicate, either directly or through their law clerks, then they can logroll. To illustrate, if Bert cares strongly about an issue which Ann is deciding and Ann cares strongly about an issue which Bert is deciding, each could agree to write an opinion favorable to the other's normative views.

³⁴ See Richard A. Posner, *An Economic Approach To Legal Procedure And Judicial Administration*, 2 J. LEGAL STUD. 399, 450 (1973) (uncertain legal liability raises settlement costs and therefore lowers the settlement rate).

³⁵ See *infra* Part V for a discussion of the consequences attendant to contravening a higher judge's ruling.

tion of the governing precedent thereby has an incentive to call it to the judge's attention, the judge's task is made even easier.

This increased efficiency³⁶ benefits the judges in two ways. Not only will the judges have more time for non-judicial activities, but each judge will also maximize his influence. To explain, if nonproductive competition leads to more appeals, then more judges may be appointed to absorb the increased case load. Each judge would then decide only one-third or fewer of the appeals, compared to the fifty percent decided when the appellate court consisted of two judges. Consequently, each judge maximizes his own future influence with a mutual agreement to be constrained by the other's precedents.³⁷

Moreover, the incentive to form an agreement, if perfectly and costlessly enforced,³⁸ is present almost regardless of the degree to which the appellate judges' normative views differ. For example, if Ann and Bert only disagree occasionally as to the appropriate determination of legal issues raised on appeal, they would still save time by eliminating the nonproductive competition. In addition, they would each maintain the same net ability to incorporate their normative views into the legal system. Indeed, the total obtainable benefits to such an agreement will be greater the more often the judges disagree because *stare decisis* will enable the judges to save more time and eliminate the need for more appellate judges. In other words, the more often the judges disagree, the greater the proportion of their time the judges spend engaging in nonproductive competition, and the greater the gains from its effective elimination.³⁹

³⁶ The term "efficiency" as used in this Article differs from the traditional notion of social "efficiency." Here the term "efficiency" as applied to courts involves a concern for clearing court dockets, rather than a concern for saving taxpayers' money or generating higher quality legal decisions. Nevertheless, these latter concerns are fully consistent with the theory presented, and their presence would enhance the judges' incentives to implement *stare decisis*.

³⁷ *Stare decisis* also creates greater fairness, consistency, certainty and predictability in the legal system. To the extent the judges favor these attributes (*i.e.* they want to live in a relatively certain, predictable and fair society), the agreement will produce additional benefits for them.

³⁸ If enforcement is costly, rational judges who do not share perfectly identical normative views might nevertheless reject *stare decisis*. For example, if the judges rarely disagree, then the enforcement costs may exceed the benefits derivable from the agreement. If so, they may prefer the small amount of nonproductive competition which exists without an agreement to the costs of forming and enforcing an agreement.

³⁹ The judges would have no incentive to form an agreement only in the extreme case where they share perfectly identical normative views. Because nonproductive competition would be absent from their interaction, they might obtain the benefits of

Until now it has been assumed that judges can form an agreement that is perfectly and costlessly enforced. "Real world" agreements, however, are neither perfectly nor costlessly enforced. In fact, when our two judges attempt to form such an agreement, a Prisoner's Dilemma situation results. The next Part will explain this strategic dilemma and consider a resolution.

III. PRISONER'S DILEMMA ASPECTS OF *STARE DECISIS*

The inherent tension associated with the judges' agreement can be described as a simple Prisoner's Dilemma game.⁴⁰ Each judge benefits from an agreement that preserves his net ability to impose his normative views on society while eliminating non-productive competition. Each would ultimately prefer, however, that the other judge follow his precedents without he himself being bound to follow the other's precedents. Of course, every agreement contemplating a mutual exchange can be analyzed as a Prisoner's Dilemma situation. Usually the temptation to cheat on the agreement can be resolved by court enforcement of contracts. The problem at hand is unusual because we have assumed that the courts themselves adopt *stare decisis*. Because a judge could hardly be expected to enforce an agreement against himself, the usual threat to ensure performance is largely unavailable. Nevertheless, the literature on trigger strategies for effective cartel enforcement is instructive for *stare decisis*, which can be viewed as a tacit collusion problem.

A. *The Judges' Prisoner's Dilemma*

The temptation to ignore or distinguish each other's prece-

stare decisis without forming an agreement. The judges might nevertheless adopt *stare decisis* in order to discourage the appeals of those litigants who are unaware that the judges' normative views are identical.

⁴⁰ This Article assumes the reader is familiar with the story of the Prisoner's Dilemma as well as the formal requisites of the Prisoner's Dilemma paradigm. For a history of the invention of the Prisoner's Dilemma story, see Philip D. Straffin, Jr., *The Prisoner's Dilemma*, 1 U.M.A.P. JOURNAL 101 (1980). For a basic treatment of the Prisoner's Dilemma paradigm, see ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* (1984); CHARLES J. GOETZ, *CASES AND MATERIALS ON LAW AND ECONOMICS* 8-35 (1984); ERIC RASMUSEN, *GAMES AND INFORMATION, AN INTRODUCTION TO GAME THEORY* 27-30 (1989). For general discussions, see R. DUNCAN LUCE & HOWARD RAIFFA, *GAMES AND DECISIONS* 94-102 (1967); ANATOL RAPPAPORT & ALBERT M. CHAMMAH, *PRISONER'S DILEMMA, A STUDY IN CONFLICT AND COOPERATION* (1965); ANATOL RAPPAPORT, *N-PERSON GAME THEORY, CONCEPTS AND APPLICATIONS* (1970). For an application of the Prisoner's Dilemma in a specific legal context, see Robert L. Birmingham, *Legal and Moral Duty in Game Theory: Common Law Contract and Chinese Analogies*, 18 BUFF. L. REV. 99, 105-10 (1968).

dents creates a risk that *stare decisis* will unravel. To illustrate, imagine a simple game whereby Ann and Bert each must choose whether to “cooperate” by following the other judge’s precedent or to “defect” by either distinguishing or refusing to follow the other judge’s precedent when that precedent clearly governs the issue and facts in an appeal. Imagine also that the payoffs to each judge from his decision are as shown in Figure 1 below. The payoffs include the judge’s satisfaction derived from imposing his normative views on society, as well as the offsetting disutility associated with nonproductive competition and the increased effort involved in formulating a second, conflicting rule. The judges’ payoffs are interdependent. That is, Ann’s utility is determined not only by whether Ann herself chooses to follow Bert’s precedent but also by whether Bert has chosen to follow her precedent.

		ANN	
		Cooperate	Defect
BERT	Cooperate	(10, 10)	(12, 3)
	Defect	(3, 12)	(5, 5)
		Payoffs (Ann, Bert)	

FIGURE 1

For example, suppose that in Period 1 Ann wrote an opinion recognizing a woman’s right to an abortion, and Bert wrote an opinion recognizing the right to burn flags as protected political speech. In Period 2 Bert is assigned an abortion case, while Ann is assigned a flag burning case. Bert does not approve of abortions and Ann does not approve of flag burning. Suppose further that a judge receives a payoff of 10 utils if his precedent is followed, while the judge who follows a precedent receives a payoff of 0. If his precedent is not followed, then each judge could receive a payoff of 5 utils. That is, each judge decides fifty percent of the cases according to his own normative views, so the payoff is split in half and enjoyed equally. Suppose, however, that each judge incurs a cost of 2 utils when a precedent is not followed, representing the costs of deciding an additional number of appeals resulting from inconsistency. Moreover, suppose the defecting judge incurs a cost of 1 util to formulate the second, conflicting rule.

Notice in Figure 1 that the combined utility for the judges is highest when both cooperate (i.e. follow each other’s precedents). They each receive 10 utils because each of their precedents is followed, so the combined payoff is 20. In contrast, if one judge defects, the com-

bined payoff is only 15. To illustrate, suppose Bert defects by rejecting a woman's right to have an abortion while Ann cooperates by protecting flag burning. Bert receives a payoff of 12 utils (10 utils because his precedent is followed, plus 5 utils for ignoring Ann's precedent, minus 3 utils because more litigants will appeal cases concerning the abortion issue and he must write the conflicting precedent). Ann receives a payoff of 3 utils (0 utils for following Bert's precedent, plus 5 utils because her precedent was ignored, minus 2 utils because more litigants will appeal cases concerning the abortion issue). If both judges defect by ignoring each other's precedent, then the combined payoff is only 10. Each judge receives a payoff of 5 utils (5 utils because he violated the precedent, plus 5 utils because his precedent was ignored, minus 4 utils because more litigants will appeal both issues, minus 1 util because he must write a defecting opinion). Note that the only force contributing to the smaller payoffs from mutual defection is the added effort involved in nonproductive competition and in formulating a second, conflicting rule. Mutual cooperation is not stable, however, for each judge is made better off in any single interaction by defecting. This is illustrated in Figure 1 by a payoff of 12 rather than 10.

While the numbers chosen to represent the payoffs in Figure 1 are purely fictional, their relationship to one another does reflect the inherent tension faced by judges who agree to follow each other's precedents. Without an agreement, each judge on average decides fifty percent of the cases in which either the abortion or flag burning issue is raised, but there is nonproductive competition. Thus, not only must both judges invest the extra effort necessary to formulate a legal rule, but the fact that their formulated rules conflict also means the judges must decide these issues repeatedly. They will incur the cost of wasteful competition both now and in the future. With a perfectly enforced agreement, Bert's precedent governs the flag burning issue, while Ann's precedent governs the abortion issue, and the two judges save time because the number of appeals is reduced.

Suppose instead that Bert exploits Ann's willingness to abide by the agreement. Bert's precedent would still govern the flag burning issue, so the legal system would clearly reflect his normative views with respect to this issue. Bert might ignore Ann's abortion precedent, however, and decide those cases according to his own normative views as well. There would still be nonproductive competition with respect to the abortion issue, but the extra work involved might be more than offset by the increased ability to impose his normative views on society. Bert is better off because now seventy-five percent of the cases involv-

ing either the abortion or the flag burning issue will be decided according to his values, while only twenty-five percent of the cases will be decided according to Ann's values.

Bert's advantage would be only temporary, however, for when Ann discovers she has been exploited, she too will ignore their agreement. By unilaterally abiding by the agreement, Ann is not only faced with some nonproductive competition, the very phenomenon the agreement was designed to avoid, but she also has lost her net ability to have cases decided according to her own rather than Bert's normative views. Thus, Ann will restore some of her discretion by refusing to be bound by Bert's precedents, with the result that the judges would then occupy the same inferior position they encountered without an agreement.

Ann prefers to restore her discretion by defecting, even at the cost of increased nonproductive competition.⁴¹ That is, if she were actually willing to reduce unilaterally her net ability to decide cases according to her own values in order to eliminate some nonproductive competition, then the agreement would not be necessary. Ann would simply save time by following Bert's precedents on her own. The crucial aspect of their agreement is that it enabled each judge to save time without jeopardizing either judge's net ability to decide cases according to his or her own values. If Ann cannot maintain this net balance of power by following Bert's precedents, she will restore that balance even though it will mean more work for both judges.⁴²

B. Enforcing the Agreement

Nevertheless, when an agreement to follow each other's precedents is necessary to *stare decisis*, the judges can theoretically enforce the agreement by virtue of the iterative nature of their interaction. As long as the judges expect to work together indefinitely, then each can use potential future benefits from *stare decisis* to encourage present cooperation from the other. For example, Ann and Bert may each decide to retaliate against each other's de-

⁴¹ When Bert unilaterally defected, nonproductive competition plagued only the abortion issue, whereas if Ann also defects nonproductive competition will plague both the abortion and flag burning issues.

⁴² Of course, this analysis depends on the model's underlying assumption that judges primarily desire to impose their normative views on society and only secondarily want to decrease the effort necessary to perform their duties. If Ann was merely lazy and did not care at all about whether the legal system reflected her own values, then she would continue to follow Bert's precedents regardless of Bert's behavior. It seems much more likely, however, that a judge is at least somewhat concerned with whether the legal system reflects her values. If so, Ann would presumably not willingly follow some of Bert's precedents without an enforceable agreement.

fections by refusing to follow the defecting judge's precedents. In other words, at least in this grossly oversimplified model, the judges can maintain an equilibrium of cooperation with the threat of perpetual defection.

This trigger strategy equilibrium was first enunciated in the industrial organization context, and the logic is relatively straightforward.⁴³ As indicated earlier, Bert has an incentive to defect in any single interaction by not following Ann's precedent. If Bert does defect, however, then Ann may assume he will defect in the future as well. If so, Ann can do no better than to defect herself. Consequently, Ann can credibly threaten that if Bert refuses to follow even one of her precedents, she will then forever refuse to follow his precedents. By the same reasoning, Bert also can strategically threaten perpetual defection. As a result, each agrees to cooperate so long as the other one does, and each views the repercussion of defecting as throwing the interaction back into the noncooperative equilibrium forever.⁴⁴ As demonstrated in Part II C, in the long run the judges are better off in a cooperative equilibrium. Because each judge stands to lose all the benefits of future cooperation by virtue of a single defection, each judge is willing to cooperate by following the other's precedents.

As long as the gain from defecting today is less than or equal to the present value of future losses from perpetual noncooperation, then both judges are willing to follow each other's precedents. The gain from defecting today is equivalent to the payoff received today from defecting (assuming the other judge cooperates), minus the payoff today from mutual cooperation. The present value of the loss from defecting today is equivalent to the discounted expected value of a whole future of cooperation, minus the discounted expected value of a whole future of nonproductive competition. So long as this inequality holds, the judges would cooperate by virtue of the iterative nature of their interaction.

Although the equilibrium solution holds in the simple model presented thus far, it may fail as an effective strategy in more com-

⁴³ James W. Friedman, *A Non-cooperative Equilibrium for Supergames*, 28 REV. OF ECON. STUD. 1 (1971) (presenting trigger strategy of perpetual defection under conditions of certainty). The optimal strategy for cartel members to adopt in response to suspected cheating, which they infer from a drop in the market price below the price that obtains when all firms produce at agreed upon levels, is to produce at competitive levels thereafter. *Id.*

⁴⁴ The noncooperative equilibrium is the pre-agreement state of affairs described in Part II B. In effect, the judges threaten to disavow completely their agreement in the event of a single defection.

plicated models. The model presented does not allow judges to control the breadth of their precedents, nor does it reflect uncertainty as to which cases the preexisting precedents govern. The next Part will analyze whether the judges can still enforce their agreement in more complicated settings, and, if so, whether the judges' optimal enforcement strategies differ in these settings.

IV. A SMALL DOSE OF REALITY: THE JUDGES' AGREEMENT WITH A LITTLE MORE REALISM

Part III demonstrated that *stare decisis* is, in theory, self-enforcing. This Part will introduce more realism by first considering, in section A, the judges' agreement and enforcement strategy when each judge chooses the breadth of his precedents. Section B will then consider how the optimal enforcement strategy might differ with uncertainty. Conflicting precedents will be considered in section C, and replacement mechanisms are discussed in section D.

A. *Variable Precedents*

For simplicity, assume that once a judge sets his holding in an opinion, the other knows for certain which fact patterns are governed by that holding. Suppose, then, that Bert is assigned an appeal that raises an issue not governed by any existing precedents. To illustrate, suppose a defendant has appealed his conviction because the only evidence indicating the defendant committed the crime was a witness's testimony based on an improper line-up identification. Bert thinks that the defendant's conviction should be overturned unless the witness had a sufficient independent opportunity at the scene of the crime to identify the defendant as the perpetrator. He concludes that, although the defendant was only thirty feet away from the witness and wore light-colored clothing, the witness did not have an adequate opportunity to view the defendant because it was dark, and the perpetrator, who had no particularly distinguishing features, was turning to run when the witness saw him.

Bert, therefore, reverses the conviction and writes an opinion which can be represented diagrammatically as shown in Figure 2. The horizontal axis represents the variance in the possible facts when the issue is raised in criminal trials. X is that point in the fact space which represents the facts of this appeal as found by the trial court and described above. Those points lying to the right of X could represent situations where the witness viewed a perpetrator for a short period in daylight. Those points to the left of X could

represent situations where the perpetrator, who had unusual features, was viewed at night, but for a longer period of time and at closer range.⁴⁵ The vertical axis represents the various probabilities: that Bert would want a criminal conviction reversed, given the circumstances surrounding an eyewitness identification at the scene of the crime; that his opinion covers a particular fact pattern; and that his holding governs a particular fact pattern.

As the facts in later cases differ increasingly from X, the probability that Bert's opinion governs the later facts falls toward zero for two reasons. First, as indicated by Bert's opinion, he himself becomes more equivocal as to the preferred outcome as the facts vary from those presented in this appeal. Second, the horizontal axis will only reflect those factual considerations deemed relevant to Bert in this appeal. A later case might raise different types of facts which are present along another dimension and therefore not considered by Bert, such as how many lampposts lighted the street, whether the perpetrator spoke, and the quality of the witness's visual acuity.

The endpoints of Bert's opinion, denoted in Figure 2 as points A and B, represent those points at which the facts are sufficiently different so that, as discussed in Part II A, the expected costs of over-inclusion just outweigh the expected gains from influencing a broader range of behavior. Bert can locate these endpoints in his opinion with language such as, "were the facts presented A, or B, this would be a different case."

To clarify, I assume that the lines which represent Bert's opinion, OA and OB, are both continuous and eventually downward sloping. By continuous, I mean that Bert cannot isolate the fact pattern represented by W in Figure 2 as one fact pattern where he would certainly affirm the conviction and also indicate he might reverse convictions with fact patterns lying to the right of W. By eventually downward sloping, I mean that even if Bert is certain that he would also reverse convictions with facts close to X in the fact space, at some point the facts will become sufficiently different in at least one direction so that he is less certain he would want to reverse. It is not necessary to assume that the lines representing the opinion are either straight or symmetrical. Indeed, Bert may think that even though he is willing to reverse this conviction, he would affirm if it were any more light out. If so, he would write an

⁴⁵ Line OX is actually the intersection of several planes, representing a time continuum, light continuum, distance continuum and a uniqueness continuum. For diagrammatical ease, however, I have collapsed them all onto one continuum.

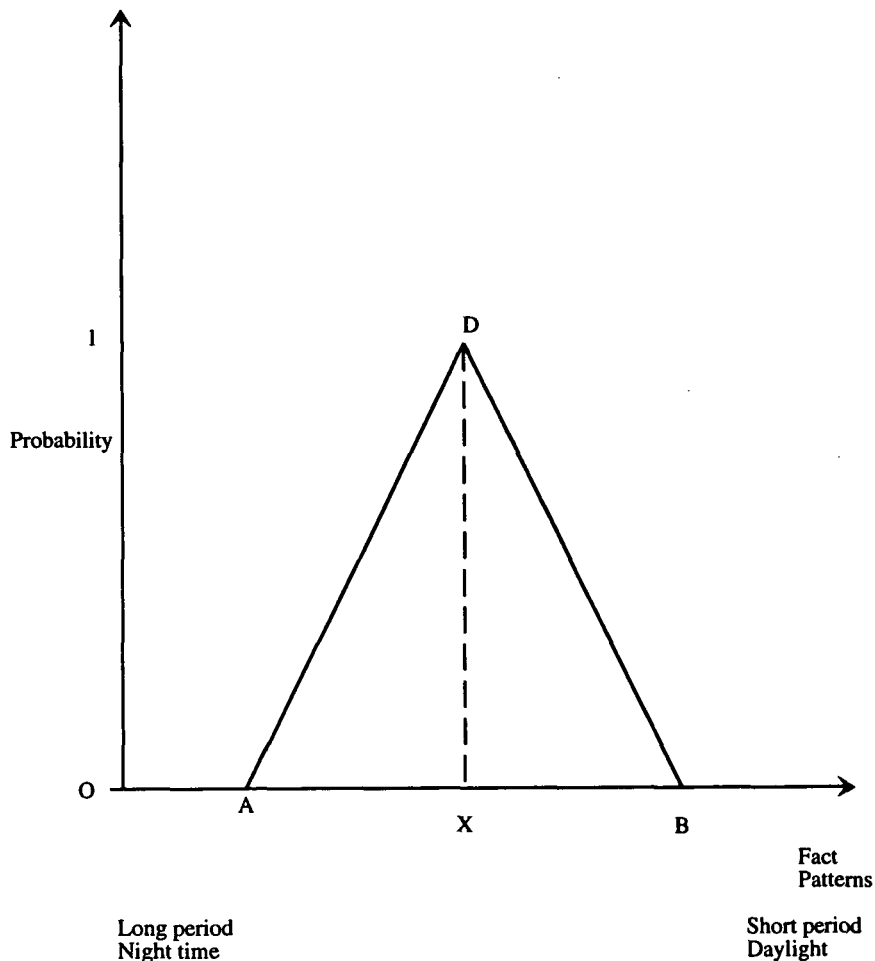


FIGURE 2

opinion noting that this is the most extreme case in which he would reverse. Alternatively, he would refer to the facts in his opinion as presenting "a close case" or "a hard case." OB would then be a vertical line and OA would be a line sloping downward to the left of X. Of course, the model also generally assumes that a judge cares more about the correct legal rule than about the facts of the case. If Bert were concerned only about the outcome of the particular case, however, he could limit his opinion to OX.

The distance between A and B in Figure 2 represents the breadth of the opinion itself. In determining this distance, Bert faces the same trade-off that was discussed in Part II. That is, the

broader the language of the opinion, the wider the range of behavior that is influenced. The probability that he will influence behavior in a manner contrary to his normative views, however, will also increase. For example, Bert might think that where a line-up identification is an important piece of evidence implicating a defendant, then the police should take precautions to ensure that the defendant is not falsely convicted. In these situations, he may reverse convictions so that the police take more care in the future. If the witness, however, clearly knew at the crime scene exactly who the perpetrator was (e.g., if the witness and the perpetrator had been friends for many years), then Bert may believe that tax dollars should not be spent to search for and hire individuals who physically resemble the defendant or to take other precautions regarding the line-up. If these line-ups are mere technicalities, Bert will be reluctant to write opinions indicating that elaborate procedures always will be necessary to avoid conviction reversals. Such fact patterns would fall outside of points A and B, indicating that in these situations Bert is likely to reach the opposite result.⁴⁶

Although Bert writes an opinion as represented in Figure 2, he is unwilling to enforce reversals along the entire range of fact patterns between A and B. That is, the closer the facts of a future case are to A or B, the less incentive Bert has to punish Ann for not following his opinion. As indicated in Part II, he himself is unsure whether his precedent should govern fact patterns closer to A or B, so he will want to leave some room for Ann to use her discretion. Thus, Bert will indicate in his opinion a more narrow interval of fact patterns, which also includes X, in which he will not tolerate distinction or outright rejection of his precedent. He will therefore punish Ann if she does not follow his precedent when confronted with facts within this more narrow range. Figure 3 is a diagrammatic depiction of this phenomenon. The language of the opinion is still represented by AOB, but Bert will only punish defections which occur between C and D. That part of the opinion which carves out the more narrow distance between C and D is more commonly known as the holding.⁴⁷

⁴⁶ Note that this analysis also applies to the one-judge model in Part II A.

⁴⁷ An assumption of the model is that a judge cannot formulate a discontinuous holding. In other words, Bert cannot hold in the same case that convictions will be reversed between fact patterns C and D in Figure 4, but will be affirmed in all cases to the right of D. This restriction could be imposed by the judges themselves to prevent territory-grabbing.

Alternatively, the restriction could be an external constraint arising out of the case or controversy requirement of Article III. See *supra* notes 17-18 and accompanying text. The case or controversy requirement forbids the resolution of abstract legal

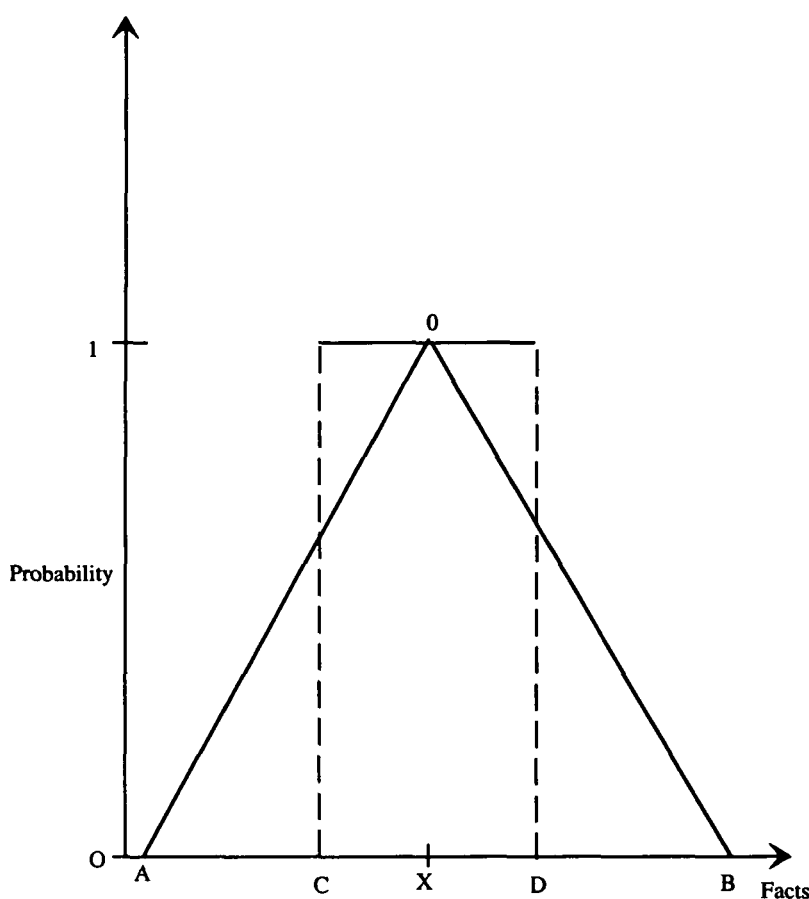


FIGURE 3

In effect, then, Bert's precedent, as viewed by third parties, is more like that shown in Figure 4. When fact patterns lie between C and D, the conviction will be reversed. When fact patterns lie between A and C and between D and B, Bert might reverse the conviction if he were assigned the appeal, but Ann would be free to use her discretion if instead she were assigned the appeal. Bert will

issues by federal courts unless it is a necessary by-product of the resolution of particular disputes between individuals. Lea Brilmayer, *The Jurisprudence Of Article III: Perspectives On The "Case Or Controversy" Requirement*, 93 HARV. L. REV. 297, 300 (1979). The Article III requirement reflects a desire to avoid the "unfairness of holding later litigants to an adverse judgment in which they may not have been properly represented." *Id.* at 302. Under Article III, "[d]iscussion of hypothetical situations may be dismissed by later courts as mere dicta." *Id.* at 304. Thus, the case or controversy requirement may forbid discontinuous holdings.

write an opinion broader than the holding as an information-providing mechanism, even though that part which is broader will not be enforced. In effect, Bert is communicating to members of society, as well as lower court judges, that there is some probability that the appellate court will reverse convictions when the fact patterns lie along either AC or DB. Given Bert's opinion, the greater the probability on the vertical axis that corresponds with a particular fact pattern on the horizontal axis, the greater the likelihood of a reversed conviction, even though the probability that Bert is assigned the appeal is only fifty percent.

In fixing the breadth of his holding, Bert faces a trade-off similar to the one regarding the breadth of the opinion itself. As Bert broadens his holding, he includes cases in which there is a lower probability that he himself would reverse. Moreover, Ann can no longer use her discretion with these fact patterns.⁴⁸ Assuming punishment is costly to Bert (he too must incur the costs associated with nonproductive competition), he must be prepared to incur these costs to punish Ann for distinguishing his precedent even in cases where Bert might in fact agree with Ann's distinction.⁴⁹ He will, therefore, want to limit the breadth of his holding to minimize "incorrect" reversals.

Conversely, as Bert narrows his holding, Ann can use her discretion in cases where there is a higher probability that Bert favors conviction reversals. Thus, Bert can no longer ensure reversals in cases with fact patterns lying along these intervals. Bert will choose for his holding that breadth which minimizes the expected costs of undesirable reversals resulting when Ann is bound to follow his holding, and undesirable affirmances resulting when Ann is permitted to use her discretion.

Thus, the judges' enforcement mechanism can be described as a trigger strategy. Bert will not punish Ann for failing to follow his precedent when the facts lie further away from Bert's case, denoted by X in Figures 2-4. If, however, Ann fails to follow his precedent for those cases with fact patterns lying within Bert's holding, then Bert will punish Ann.

Under certainty, where both judges know exactly which fact

⁴⁸ If Bert defers to Ann's specialized knowledge about a particular subject, as discussed *supra* in Part II B, then his holding will be quite narrow. Indeed, it may not extend beyond X itself, enabling Ann to use virtually complete discretion in her area of expertise.

⁴⁹ If Bert does not punish Ann because he agrees with her distinction, then Ann may think future distinctions also will be costless. To prevent these future distinctions, Bert might retaliate against breaches which he thinks are sensible.

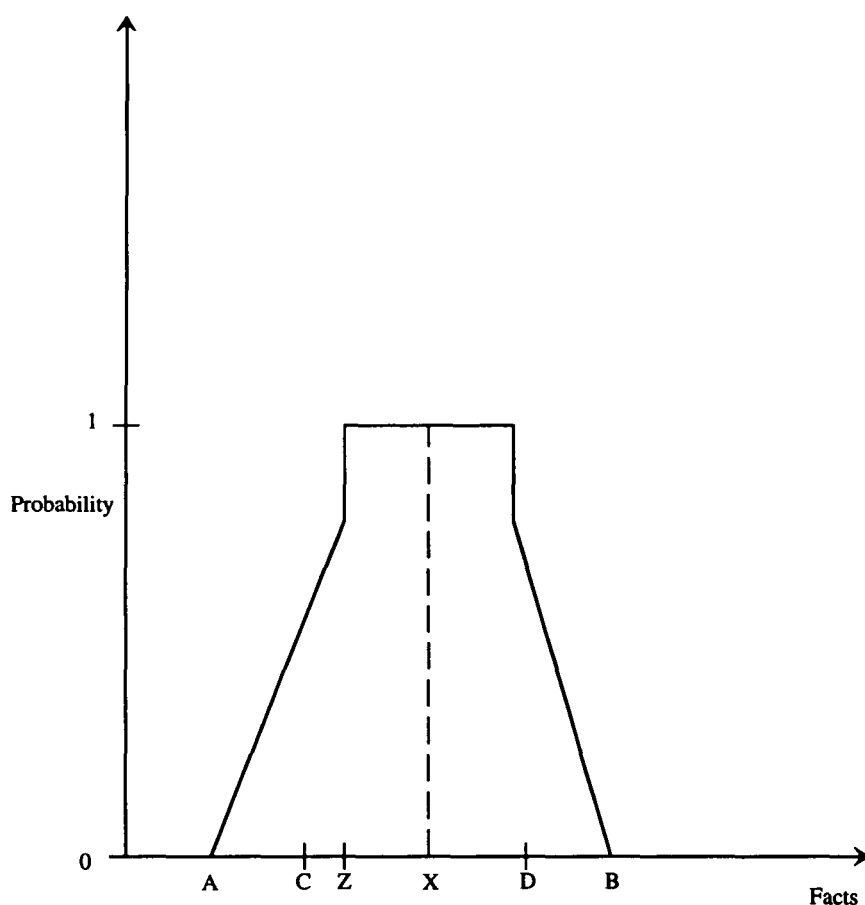


FIGURE 4

patterns are governed by Bert's holding, the optimal punishment for not following Bert's holding is still perpetual defection. That is, Bert's best strategy is to announce to Ann that he will consider their agreement to be null and void if she defects by failing to follow even one of Bert's holdings. If both judges announce this perpetual defection strategy as part of their agreement, they will be providing the greatest possible deterrence against defections. Ann will be deterred from defecting in any given case because, although she can impose her own normative views in one additional case by defecting, she cannot be any more successful on net in imposing her values without the agreement. As before, nonproductive competition will create a great deal of additional work for her. Therefore, because Ann stands to lose all the benefits of the agreement

by defecting even once, she has no incentive ever to defect. Perfect enforcement of the judges' holdings would result.

B. Thoughts on the Agreement With Uncertainty

At this point the attentive reader has undoubtedly noticed that the assumption of certainty imposed earlier is highly unrealistic. The judges simply lack the resources necessary to write every holding with sufficient precision to eliminate all ambiguity concerning its breadth. Even if the judges faced no time constraints, language is inherently ambiguous,⁵⁰ making perfect precision unattainable. This section therefore considers how the optimal enforcement strategy might differ under conditions of uncertainty.⁵¹ More specifically, assume now that there is some uncertainty about precisely which fact patterns lie within each holding.

The same trade-offs influence Bert's opinion and holding with uncertainty. Adopting an enforcement strategy with the greatest possible deterrence, however, is no longer optimal. To illustrate, suppose Bert writes his opinion and holding as shown diagrammatically in Figure 4. In the following period, Ann is assigned an appeal concerning a criminal defendant whose conviction was based on a tainted line-up identification. The fact pattern associated with the case is denoted as Z in Figure 4. That is, Bert intended his holding to govern fact pattern Z. Because the language he used in setting his holding was ambiguous, however, Ann sincerely believes that Z lies outside of Bert's holding. Believing that she is therefore free to use her discretion, Ann distinguishes fact pattern Z from fact pattern X and affirms the conviction.

If Bert follows a strategy of perpetual defection, he will declare their agreement null and void. Because the judges inevitably will misapply holdings to future fact patterns, an enforcement strategy of perpetual defection by either judge will severely diminish their ability to reap the benefits of their agreement. As soon as the first mistake is made, the judges will return to the inferior position they occupied without an agreement.

Bert could modify his strategy to forgive Ann's mistaken fail-

⁵⁰ See Ehrlich & Posner, *supra* note 3, at 268 (noting inherent ambiguity of language).

⁵¹ Unfortunately, game theory has not yet advanced to the point where anyone can precisely specify the judges' agreement and the enforcement mechanism under uncertainty. This section therefore proceeds with the caveat that only a very general discussion is possible. The type of equilibrium discussed in this section exists in a broad class of uncertainty settings and is treated in Dilip Abreu et al., *Optimal Cartel Equilibria with Imperfect Monitoring*, 39 J. ECON. THEORY 251 (1986).

ures to follow Bert's holdings, but it would be difficult if not impossible for Bert to distinguish Ann's mistakes from her deliberate defections. Bert's difficulties will be compounded if Ann knows that good faith mistakes will be forgiven, for then she will have an incentive to feign mistaken misapplications. And if he misinterprets a good faith mistake as a deliberate defection, then both judges will be forever deprived of the benefits of *stare decisis*.

Under uncertainty, then, the judges must adopt a less drastic enforcement strategy that is sufficient to deter defections without risking all the benefits of the agreement. In addition, each judge will want to allow for good faith mistakes without being exploited. Given these difficulties, their optimum enforcement strategy is similar to that described in an article written by Edward Green and Robert Porter.⁵²

Green and Porter identified the equilibrium cartel enforcement strategy when each firm in an oligopolistic industry does not know the production levels of the other firms. In their model, the firms form a cartel and agree to produce only a given level of output. The firms are unable to observe directly each other's output to monitor whether other firms are cheating. A firm can determine whether other firms are cheating by observing whether the firm had lower profits in the previous period. Because lower profits could also indicate that demand was lower for the previous period, however, the firm cannot tell with certainty whether the other firms are cheating. If the firm's profits fall below a certain level, however, it becomes statistically less likely that the reduced profits are simply a result of reduced demand for the product. Therefore, they agree that if profits fall below a given level, the firms will resort to competitive outputs for a predetermined period of time during which all firms are deprived of monopoly profits. This punishment period is made just long enough so that the marginal benefit from cheating is outweighed by the costs of punishment. The result is that none of the cartel members ever cheat (at least not more than a small amount). There will still, however, be punishment periods characterized by price wars when demand does in fact fall far enough to drop profits below the trigger level.

Applying this cartel strategy to our judges, the equilibrium strategy under uncertainty can be achieved in the following manner. Each judge knows that a certain percentage of a judge's failures to follow past holdings is consistent with the uncertainty

⁵² Edward J. Green & Robert H. Porter, *Noncooperative Collusion Under Imperfect Price Information*, 52 *ECONOMETRICA* 87 (1984).

created by ambiguous language. As that percentage rises, it becomes less likely that distinguishing a precedent is a result of mistake rather than deliberate defection. Suppose, for ease of exposition, Ann and Bert agree that, on average, a judge would mistakenly fail to follow a holding ten percent of the time under conditions of uncertainty. Thus, they agree that if Ann fails to follow Bert's holdings more than ten percent of the time, Bert will punish Ann by refusing to follow one or more of Ann's precedents. They will specify in their agreement the number of precedents Bert will refuse to follow as punishment.⁵³ That number will be just large enough so that the marginal gain to Ann from refusing to follow Bert's precedents is usually smaller than the cost to Ann of Bert's punishment. Thus, the punishment will be just large enough to deter most deliberate defections.

The optimal enforcement is thus a trigger strategy: punishment is triggered by exceeding a probabilistic determination of the frequency of good faith mistakes. If the amount of punishment is set properly in the agreement, deliberate defections will rarely occur.⁵⁴ Nevertheless, the judges will still resort to punishment when mistakes occur more than ten percent of the time. The judges are forced to punish some honest mistakes to prevent feigned mistakes. This strategy is optimal because many mistakes can be "forgiven" and deliberate defections are controlled.

Because some punishment is inevitable under uncertainty, each judge faces a second trade-off in setting the breadth of his holding. Assuming a predetermined punishment level, a judge may prefer to write a more narrow holding when he suspects the

⁵³ Punishments would probably not count toward the ten percent defection limit. Thus, the judges would have to signal that they are punishing rather than defecting. If the judges agree to a fixed amount of punishment, the pattern of punishment could help to indicate that a judge is punishing. In addition, the punishing judge could cite the defecting cases to further indicate punishment.

⁵⁴ Because the enforcement strategy is probabilistically triggered, an occasional deliberate defection is still possible. For example, although Ann cannot be certain, she may be fairly sure that she has not made any mistakes for a number of periods. If under the agreement she is required to apply a precedent she finds distasteful, she may have an incentive to "misread" the holding to avoid applying it to the fact pattern of the appeal. After all, the likelihood of triggering Bert's punishment is relatively low if she has not made mistakes recently. Of course, she still risks punishments because she could make a number of mistakes in the next period. If she is concerned about making mistakes in the next period, however, she may apply Bert's holdings to fact patterns which she actually thinks lie outside the holdings to avoid punishment. This incentive for both judges to utilize probabilistic strategies in their decision-making and enforcement is exactly what makes game theory under uncertainty so complicated. See *supra* note 51.

other judge strongly disagrees with his resolution of an issue. This assertion requires some elaboration.

First, when the punishment is specified *ex ante*, it must be large enough to deter most defections. The stronger Ann's disagreement with Bert's precedent (in the sense that Ann cares very much about the determination of that issue and thinks Bert's precedent affects society detrimentally) the greater Ann's temptation to distinguish or reject Bert's precedents and bear the punishment cost. The broader Bert sets his holding, the more potential cases that present the danger of defection. The threatened punishment, as fixed in the agreement, must therefore be greater than the benefit of defection in order to deter defection. At the same time, Bert will want to minimize the necessary amount of punishment to reduce the risk that Ann will retaliate against his punishments. Ann might retaliate if she misinterprets Bert's punishments for deliberate defections.

Bert may thus choose a compromise position by setting a narrow holding so that Ann is required to follow a controversial precedent only in a few cases. Even though he would most like to constrain Ann's discretion regarding these issues, the compromise reduces the temptation to defect, thus lessening the required punishment for effective deterrence. Consequently, when the two judges strongly disagree, relevant holdings may be narrower than in the one-judge model presented in Part II A. In the one-judge model, the judge restricted the breadth of his holding only to preserve his own discretion. In this two-judge model, he is also concerned that he not make his holding so broad that the other judge finds it pays to defect.

C. *Conflicting Precedents*

The judges will undoubtedly want a rule governing conflicting precedents, as illustrated in Figure 5. Suppose Ann is assigned an appeal by a doctor who was convicted for performing an abortion on a sixteen-year-old patient who was six weeks pregnant. These facts are represented by Xa on the horizontal axis. The points on the far right of the horizontal axis represent abortions performed on very young patients who are in their first days of pregnancy, while the points on the far left represent patients over twenty-five years of age who are in their very last days of pregnancy.

Ann writes an opinion represented by COD in Figure 5. She intimates that almost any woman old enough to become pregnant has by force become mature enough to make decisions regarding

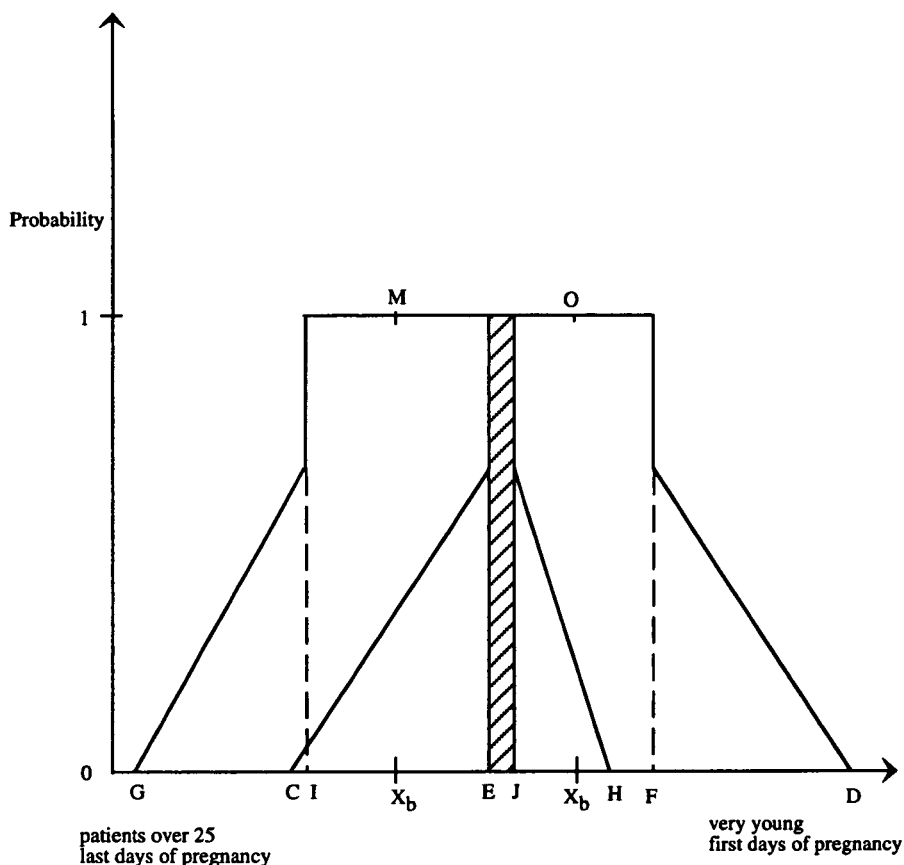


FIGURE 5

her own body. She also intimates, however, that the state has some interest in regulating abortions which occur in the last months of pregnancy, especially those months in which babies have been born and survived. Ann restricts her holding to those fact patterns lying between E and F. She reverses the conviction and declares that a doctor cannot be prosecuted for performing an abortion on a woman older than sixteen years who is in her first trimester of pregnancy. She reasons that these women have an absolute right to an abortion, and that the right would be impinged upon if doctors risked legal sanctions by helping these women exercise that right.

Suppose then, that in the following period Bert is assigned an

appeal by a doctor convicted of performing an abortion on a twenty-year-old woman who is five months pregnant. These facts are represented by Xb in Figure 5. These facts lie outside Ann's holding, so Bert will not risk punishment if he fails to reverse this conviction. Bert therefore affirms the conviction and distinguishes this case on the ground that this patient was much further along in her pregnancy. His opinion is represented by GMH and the breadth of his holding is represented by IJ. He holds that whenever a woman is more than ten weeks pregnant, the state will be permitted to regulate the performance of those abortions. Note that the facts lying along EJ are now covered by two conflicting holdings. These fact patterns represent abortions performed on women who are over sixteen-years-old and have been pregnant for ten to thirteen weeks.

The judges can protect their precedents only with a rule that, in the event two conflicting holdings cover the same fact patterns, the first holding governs. Under any other provision or practice, a judge who disagrees with a precedent could undermine it completely by writing a broad holding in a case which is not technically covered by a pre-existing holding. Even with this rule, Bert may nevertheless write such a conflicting precedent in an effort to convince Ann that her precedent is not well-suited for facts along EJ as a result of depreciation or better information. For example, technological advancements may have enabled a woman to determine reliably that she is pregnant much sooner after fertilization or fetuses may become viable after only ten weeks of pregnancy. In addition, if Bert is uncertain exactly which fact patterns lie just to the right and left of point E in Figure 5, he may write this conflicting precedent to ensure that Ann's holding is not applied further than the bounds of her original holding.⁵⁵ Ann may choose to reconsider her holding, but unless and until she does, her holding must continue to govern the facts along EJ. If Bert's arguments persuade her, she is free to narrow her holding to J in a later case.

D. Mechanisms For Replacement

If the model is correct, then the judges' agreement would include no provision for eliminating bad or obsolete precedents other than a rule that a holding is binding until its author decides

⁵⁵ This second rationale explains why Bert does not simply limit his holding but instead writes a broad opinion to convince Ann that she is wrong. In addition, a conflicting holding should generate a temporary increase in appeals, providing Ann an opportunity to reconsider the issue.

that it was erroneous or has become obsolete. This relative inability to replace precedents is a function of a model in which a decision is not "correct" in any absolute or objective sense. Recall that in the model, a decision is regarded as either correct or incorrect only insofar as it furthers the normative views of the judge who is assessing its wisdom. For the judge who wrote the holding, it is correct because it encourages behavior that he desires. Unless he later decides that such behavior does not in fact further his normative views or that the holding is unnecessary to further his values, to him the decision is correct. Thus, Bert would not agree to a provision whereby Ann could replace his precedent if Ann (or scholarly commentators) deemed it to be incorrect.

Consequently, internally generated *stare decisis* inevitably creates a legal system that is sometimes saddled with seemingly ill-suited or archaic principles. At least three forces can alleviate the potential entrenchment of bad decisions by the appellate judges: (1) replacement of judges; (2) a legislature; and, (3) supreme court or *en banc* review.

First, bad precedents can eventually be replaced when new judges are appointed to the appellate court. The model presented assumes that the judiciary is stable over time because Ann and Bert are the only appellate judges who decide cases in perpetuity. If we relax this assumption and Bert eventually retires, then Ann and Doug, Bert's replacement, can begin replacing Bert's "bad" precedents.⁵⁶ In other words, to the extent that Bert's views are not shared by other judges when he retires, his precedents will be replaced.⁵⁷

Ann and Doug have the same incentives to form an agreement and avoid nonproductive competition that existed for Ann and Bert. When a case that would previously have been governed by one of Bert's holdings is appealed, the judge who hears the appeal can either ratify Bert's precedent or replace it by ignoring it, distinguishing it, or rejecting it outright. This judge's holding will then govern.

The legal status of Bert's precedents thus becomes uncertain when he retires. Litigants will therefore be more likely to appeal their cases to the extent they deal with one of Bert's holdings. If

⁵⁶ The precedents will not necessarily be overruled. Ann and Doug may instead distinguish and qualify Bert's precedents until they no longer carry any force, especially where the societal concern for legal stability is potent.

⁵⁷ Other judges who agree with Bert's precedents may protect them. Where the precedent reflects neither Ann's nor Doug's normative views, however, it will most certainly be replaced.

everything were constant we would expect an increase in docket congestion when an appellate judge is replaced. Indeed, we would expect increased appeals as soon as Bert announces his retirement plans. If Bert is leaving, he has less opportunity to punish Ann for failing to apply his holdings. Thus, the deterrent effect of threatened punishment wanes as Bert's official retirement approaches. Bert's precedents will only be protected to the extent his normative views are shared by the other judges.

The model also includes neither a legislature nor a judicial entity with powers to review the appellate judges' decisions. A legislative entity other than the court itself could be granted the power to override those precedents it deemed to be "incorrect." In addition, a legal system could include a supreme court or an *en banc* panel to review and override an appellate judge's precedent. Of course, these structural options also include a risk of entrenching bad decisions. Some thoughts concerning supreme court review of the judges' decisions are presented below.

V. EFFECT OF SUPREME COURT ON JUDGES' AGREEMENT

The model described above lacks a supreme court to review the appellate judges' decisions, and it is beyond the scope of this Article to superimpose a supreme court onto the model and present an exhaustive analysis of the interaction between the supreme court and the appellate judges. Two points, however, can be made about the role of a supreme court. First, the presence of a supreme court is consistent with the judges' agreement so long as it reviews the appellate judges' decisions only occasionally. Second, the supreme court has an incentive to help enforce adherence to those precedents with which it agrees.

To help illustrate these points, suppose a judge named Susie is appointed to be the sole judge on a supreme court which reviews decisions by the appellate judges. If Susie reviewed every decision made by the appellate judges, no agreement between Ann and Bert to follow each other's precedents would ever evolve or be relevant. Susie would simply produce her own rules or holdings to effectuate her own normative views. Assuming it is costly to contravene Susie's decisions, Ann and Bert would apply Susie's holdings in future cases. Susie can make deviation costly by humiliating the appellate judge in her opinion and/or by remanding the case to the wayward judge so that he has more work to do. Ann and Bert would have no incentive to form an agreement because their "precedents" would effectively be little more than recommen-

dations presented to Susie. Their own precedents never persevere beyond the appeal, so any attempt to bind the other judge would be pointless. Thus, we would be back to the single judge model presented in Part II A with Ann and Bert as "filters" and agents of a higher court.

If, instead, Susie reviewed appellate court decisions only occasionally, then Ann and Bert would still have an incentive to form an agreement. For example, suppose that Susie has discretionary review, and she possesses the resources to grant certiorari for only a small percentage of petitions. Now Ann and Bert could reasonably expect that they would collectively dispose of more than one appeal raising any given issue before Susie granted certiorari. If they agreed to follow each other's precedents until Susie exposit her own precedent governing a particular issue, then they could avoid nonproductive competition in the interim. Thus, the judges' agreement is consistent with the presence of a supreme court so long as the supreme court has only a limited capacity to review the judges' decisions.

Thus far it has been implicitly assumed that the supreme court judge would be disinterested in the judges' agreement. If, however, the supreme court benefitted from the agreement, then Susie might take actions to help reinforce it and thereby make cooperation between Ann and Bert more stable.⁵⁸ As explained below, the supreme court wants to unambiguously reinforce appellate *stare decisis* only under some circumstances.

To illustrate, suppose Susie only grants certiorari when the appellate judges render decisions contrary to her own normative views. This is not to say she hears each and every case where she disagrees with an appellate judge's outcome. When she observes, however, that one or both of the appellate judges are exhibiting a pattern of deciding appeals "incorrectly" with respect to a particular issue, then she will grant certiorari to impose her normative views on society.⁵⁹

⁵⁸ Part III noted that enforcement of *stare decisis* must come from the judges themselves because resort to the courts is unavailable. Here I consider whether a supreme court has an incentive to provide such enforcement.

⁵⁹ Of course, the United States Supreme Court sometimes affirms an appellate court decision without circuit conflict. This may be explained in part by the "rule of four" certiorari requirements. See CHARLES ALAN WRIGHT, *THE LAW OF FEDERAL COURTS* 757 (4th ed. 1983) (certiorari is granted whenever four justices vote for a grant). In 1946 and 1947, the decision to grant certiorari was supported by only four votes in over 25 percent of the cases. In 1979, 23 percent of the petitions granted received only four votes. In 1980, the figure was greater than 30 percent; in 1981, it was 29 percent. Stevens, *supra* note 3, at 16-17. When the disposition vote is taken,

Suppose further that each appellate judge decided two appeals in period 1, and that one decision by each judge was consistent with the other's normative views, while the other was not. Without an agreement, two of these four issues would each have one governing rule and the other two issues would each be subject to contrary rules. With respect to the two issues that have one governing rule, Susie will grant certiorari only if she disagrees with the rule generated by the appellate judges. In contrast, with respect to the two issues governed by contrary rules, Susie must hear at least one appeal dealing with each of the two issues in order to impose her normative views on society by announcing her own governing rule.

If instead Ann and Bert followed each other's precedents, then each of the four issues would be governed by one rule. So long as Susie agrees with either of the judges' precedents some of the time, she will need to grant certiorari less often to impose her normative views. In other words, if after several periods the appellate judges disagreed over the appropriate resolution of ten issues, Susie must hear all ten issues to impose her normative views without the judges' agreement. With the judges' agreement in effect, she need hear only those issues when she disagrees with the appellate judges' governing precedents. In this sense the judges' agreement enables Susie to impose her own normative views with less effort, so we could expect that she would be willing to help enforce it by making defection more costly.⁶⁰

On the other hand, if Susie disagrees with the original precedent, she must eventually grant certiorari to impose her normative views regardless of whether that precedent is followed by the other appellate judge. Thus, if Bert sets a precedent with which Susie disagrees, she saves no time if Ann follows the precedent. Indeed, Susie is actually better off if Ann refuses to follow Bert's precedent because when Ann defects, at least some of the appeals decided before Susie has a chance to grant certiorari will have outcomes she prefers.

As a result, Susie wants unambiguously to elicit their cooperation only when she agrees with the precedents. Her incentive to

the justices who voted to grant certiorari may be unable to muster enough votes to reverse the appellate court. Alternatively, societal behavior may be more definitively affected if the highest court in the land supports the precedent. The Court may therefore hear these cases to reinforce those values the justices feel strongly about.

⁶⁰ She could do so by humiliating the defector in her opinions, by not inviting him to parties, or by making sure she overturns the defector's decisions when enunciating her own precedents.

reinforce their agreement uniformly will depend on whether the benefits of hearing fewer appeals are greater than the interim costs of appellate court decisions which create unwanted behavioral incentives.⁶¹

VI. IMPLICATIONS OF THE MODEL

This Article has focused on explaining *stare decisis* as a rule that self-interested judges will adopt themselves rather than one that society imposes on reluctant judges. Assuming the model makes sense in theory, has it succeeded in predicting that a rule of *stare decisis* will exist where it in fact exists in practice? If so, does the model predict that *stare decisis* will successfully constrain decision-making, or is *stare decisis* really little more than a mirage invented by judges in an effort to have us, as well as other judges, believe they are constrained? Finally, does the model predict any particular attributes of judicial decision-making under *stare decisis*?

A. *When Will Stare Decisis Evolve?*

This Article primarily models courts with more than one decision-making entity at the same level of a judicial hierarchy. Therefore, although a supreme court may adopt *stare decisis* with respect to its own precedents to discourage appeals, the model does not focus on a court that sits as a single decision maker. And, except for positing that higher courts can make it costly for lower courts to ignore their precedents, the model also has little to say about lower courts following the precedents of higher courts. Rather, the Article most appropriately models courts with two or more appellate judges who each have equal and independent authority to decide cases, either individually or in multiple panels.

⁶¹ Landes and Posner posit that the Supreme Court does check the frequency of appellate court judges ignoring each other's precedents. Landes & Posner, *supra* note 3, at 273. They argue that:

[the Court's] power to reverse the decisions of lower courts checks any tendency on the part of lower-court judges to disregard precedent . . . and its own position in the judicial hierarchy checks its members' tendencies in that direction. If the U.S. Supreme Court refuses to accord precedential weight to earlier Supreme Court decisions, it thereby undermines the precedential weight of its own decisions. . . . [I]t would appear that judges whose decisions are not subject to reversal by a higher court will adhere to precedent less consistently than those judges whose decisions can be reversed.

Id. While this argument persuasively demonstrates how the Supreme Court can protect its own precedents, it fails to explain whether the Court either can or should enforce lower court adherence to each other's precedents.

The model predicts that when there are two or more decision-making entities at the same level in a judicial hierarchy and a higher court reviews the judges' decisions only occasionally, then *stare decisis* will evolve simply because it is in the judges' interests to adopt the rule. To ascertain whether the predictions of the model fit actual practice, the model will be applied to three aspects of the American judicial system: (1) tribunals within federal circuits; (2) the interaction between federal circuits; and, (3) district courts within federal circuits. Finally, I will consider briefly the predicted effects of life tenure on *stare decisis*.

1. Tribunals Within Federal Circuits

In each federal circuit, typically a dozen or more judges sit in panels of three to hear appeals. The judges are commonly understood to make decisions subject to *stare decisis*.⁶² That is, if one panel of judges generates a precedent to govern a particular legal issue, then future panels are to apply that precedent when the issue arises again. Thus, the tribunals within each federal circuit follow their colleagues' precedents, as predicted by the model. To explain, if different tribunals within a federal circuit apply different governing rules to appeals, then the number of appeals to the circuit raising that issue will be greater than if only one rule governed appeals. Because the United States Supreme Court reviews exceedingly few court of appeals decisions, the judges retain an incentive to prevent conflicts within their circuit. Thus, *stare decisis* would eliminate nonproductive competition and thereby reduce docket congestion, without compromising each judge's net influence on policy.

Of course, judicial decision-making in a tribunal setting is more complicated than that of the model. Because the composition of judicial panels is not stable, one panel cannot simply punish another panel for not following its precedents. The individual judges who generate a conflicting precedent, however, can be punished by refusing to follow a precedent which each of the defecting

⁶² See, e.g., *Aetna Life Ins. Co. v. Alla Medical Servs., Inc.*, 855 F.2d 1470, 1473 (9th Cir. 1988) ("Absent overruling, we must follow the law of this Circuit."); *Fulford v. Klein*, 529 F.2d 377, 379 (5th Cir. 1976) ("One panel of this Court cannot overrule a decision of the previous panel, absent controlling Supreme Court authority."); *Doe v. Charleston Area Medical Center*, 529 F.2d 638, 642 (4th Cir. 1975) (decision is binding on not only a district court but also the circuit court, unless reconsidered *en banc*); *In re Central R.R. Co. of New Jersey*, 485 F.2d 208, 210-11 (3d Cir. 1973) ("it has long been the rule in this Circuit that decisions made in similar cases by panels of this Court are binding on other panels") (footnote omitted).

judges authored.⁶³ Alternatively, the author of the original precedent could punish a defecting judge by writing a scathing, personal dissent when the two of them sit on the same panel. In short then, even though the model is simplistic, it accurately predicts that the appellate judges within each federal circuit will respect each other's precedents.

2. Intercircuit *Stare Decisis*

In contrast, *stare decisis* does not apply across federal circuits.⁶⁴ For example, the Second Circuit is not bound to follow the precedents generated by the Fifth Circuit. The model would predict no rule of *stare decisis* here because an agreement to follow an other circuit's precedents will not save the judges in a particular circuit much time.⁶⁵ When a litigant files a case in the District Court of Vermont, he knows that if his case is appealed, it will be heard by the Second Circuit. So long as there is only one rule governing issues in the Second Circuit, the number of appeals heard by the Second Circuit will be affected. It is not necessary for Second Circuit judges to follow the Fifth Circuit's precedents to control docket congestion. Therefore, they would be unwilling to constrain themselves.⁶⁶

⁶³ Because appellate disposition requires that two of the three panel members be in accord, a third judge might dissent to avoid later punishment.

⁶⁴ See *Securities & Exchange Comm'n v. Shapiro*, 494 F.2d 1301, 1306 n.2 (2d Cir. 1974) (cases from other circuits do not bind the court); *City Stores v. Lerner Shops of the District of Columbia*, 410 F.2d 1010, 1014 (D.C. Cir. 1969) ("Decisions of district courts and other courts of appeals are, of course, not binding on us and are looked to only for their persuasive effect."); see generally Samuel Estreicher & Richard L. Revesz, *Nonacquiescence by Federal Administrative Agencies*, 98 YALE L.J. 679, 735-36 (1989) (evaluating the costs and benefits of intercircuit nonacquiescence). Florida's district courts of appeal do not follow intercircuit *stare decisis* either. As with the federal circuits, the Florida appellate courts each govern an exclusive geographic area, so that appeals from district court decisions are always assigned to a specific appellate court. See generally Taylor Mattis, *Stare Decisis Among and Within Florida's District Courts of Appeal*, 18 FLA. ST. U. L. REV. 143, 147-55 (1990).

⁶⁵ Moreover, a judge residing in Connecticut may care less about the qualitative life in Texas than he does about individual behavior in Connecticut.

⁶⁶ Nonetheless, intercircuit *stare decisis* governing issues related to federal administrative agency actions might enable federal judges to reduce agency "nonacquiescence" and its consequent appeals. Allan D. Vestal, *Relitigation by Federal Agencies: Conflict, Concurrence and Synthesis of Judicial Policies*, 55 N.C. L. REV. 123, 174-76 (1977) (advocating an intercircuit rule of *stare decisis* with respect to governmental relitigation policies). When administrative agencies engage in nonacquiescence, they continue specific behavior even after a federal appeals court rules that the behavior exceeds the scope of their delegated powers or violates the Administrative Procedure Act. Because aggrieved parties must continue to appeal for relief even when a circuit follows its own precedents, intracircuit *stare decisis* alone will not reduce appeals.

3. District Courts Within Federal Courts

Although the judges in the model sit on appellate courts, the model can be applied to horizontal *stare decisis* among district courts within each federal circuit. After all, district courts also have coequal authority to decide cases, and they can alleviate docket congestion if they agree to follow each other's precedents.

It is unclear whether district courts actually follow a rule of horizontal *stare decisis*. At least two commentators have noted that "[a]lthough most treatises consider a district court judge to be bound by the decisions of his colleagues on the court, case law shows that some judges do not believe this to be the case. Instead, they view the precedential effect of other judges' decisions as persuasive, but not binding authority."⁶⁷ Consequently, they conclude that the function and importance of precedent in a district court proceeding remains unclear.⁶⁸

Despite some similar incentives between federal district and

As one author suggested, an agency might engage in nonacquiescence because of the necessity for one uniform national policy regarding its procedures. See Joshua I. Schwartz, *Nonacquiescence*, Crowell v. Benson, and *Administrative Adjudication*, 77 GEO. L.J. 1815, 1818-19 (1989). Intercircuit *stare decisis* may be the way to eliminate this agency nonacquiescence. If all the circuits followed the decision of the precedent-setting circuit, a uniform policy would be generated. The agency need not worry about whether a single appellate decision is aberrant. Cf. Charles H. Nalls & Paul R. Bardos, *Stare Decisis and the U.S. Court of International Trade: Two Case Studies of a Perennial Issue*, 14 FORDHAM INT'L L.J. 139, 140 & n.6 (1990-91) (conflict and lack of consistency among various decisions of Court of International Trade fuels agency nonacquiescence).

If agencies engage in nonacquiescence for alternative reasons, however, inter-circuit *stare decisis* is less likely to reduce appeals. For example, some argue that although an agency must respect a court's judgment in a particular case, the court lacks the power to establish executive policies. See Schwartz, *supra*, at 1824-25 & n.27 (government argues that nonacquiescence lawfully prevents interference with an agency's exercise of delegated legislative authority). If this rationale drives nonacquiescence, appeals might not be reduced even if every federal circuit adopted identical limitations on agency authority.

Even assuming that the former rather than the latter rationale motivates agency nonacquiescence, perhaps frequent Supreme Court review of decisions regarding agency actions obviates the necessity for inter-circuit *stare decisis*. Agencies seeking a uniform policy or avoiding aberrant holdings must rely on circuit conflicts to justify nonacquiescence. Once a conflict arises, however, the Supreme Court is much more likely to grant certiorari and settle the issue on its own. See Estreicher & Revesz, *supra* note 64, at 751-52 & n.331 (Supreme Court rarely fails to intervene where there develops an inter-circuit conflict of any real importance). Thus, the circuits have little opportunity to engage in nonproductive competition, and an agency motivated by one of these concerns will cease to engage in nonacquiescence. As a result, the number of appeals will be reduced even without inter-circuit cooperation.

⁶⁷ Nalls & Bardos, *supra* note 66, at 146.

⁶⁸ *Id.* at 147.

appellate courts, the model weakly predicts that district courts will not, in fact, adopt horizontal *stare decisis*. Unlike the courts of appeals, whose decisions are infrequently reviewed, litigants have an automatic right to appeal district court decisions.⁶⁹ As a result, opportunities for nonproductive competition among district court judges are likely to be quite infrequent, thereby eliminating most of the benefits of an agreement. Nevertheless, the predictions are not unambiguous. Some litigants may forgo their right to appeal, notwithstanding conflicting precedents. Moreover, many appeals are disposed of summarily or with a nonprecedential memorandum opinion.⁷⁰ Because the appellate courts cannot effectively scrutinize every district court opinion, there may be some non-productive competition that *stare decisis* could eliminate.

4. Life Tenure and *Stare Decisis*

Under the common presumption that *stare decisis* is a rule imposed by society to constrain judges, judges with life tenure and guaranteed salaries should be less likely to follow *stare decisis* than judges who are elected or appointed for a short term. If the constraint is externally imposed and enforced, then judges who are less insulated from political pressures should be more likely to be constrained by *stare decisis*.

Precisely the opposite is true. English and American federal judges are structurally isolated from most political pressures, yet the appellate judges believe they have a strong obligation to follow each other's precedents. In contrast, non-Article III judges and many elected state judges deny a strict obligation to follow their colleagues' precedents.⁷¹

The model outlined in this Article better predicts the actual practice. Judges who serve for limited terms or who are subject to mandatory retirement laws are asked to leave the bench on a fixed date. Thus, the judges' strategic interactions are plagued by the

⁶⁹ *Id.* at 146-47.

⁷⁰ See 1B JAMES W. MOORE ET AL., *MOORE'S FEDERAL PRACTICE* 11 (2d ed. 1988); Arthur D. Hellman, *Jumboism and Jurisprudence: The Theory and Practice of Precedent in the Large Appellate Court*, 56 U. CHI. L. REV. 541, 554 (1989) ("[I]n recent years, substantially more than half of [the Ninth Circuit's] cases have been decided by unpublished opinions."); Nalls & Bardos, *supra* note 66, at 144; Landes & Posner, *supra* note 3, at 268 n.29.

⁷¹ See, e.g., Mattis, *supra* note 5, at 274 (Michigan appellate courts failed to follow horizontal *stare decisis*); Taylor Mattis & Kenneth G. Yalowitz, *Stare Decisis Among [Sic] The Appellate Court of Illinois*, 28 DEPAUL L. REV. 571, 573 (1979) (elected Illinois appellate judges do not follow horizontal *stare decisis*); Nalls & Bardos, *supra* note 66, at 140-43 (no *stare decisis* on U.S. Court of International Trade).

same unravelling problem present in all strategic games with fixed end points.⁷² Because judges with life tenure do not know when their colleagues will step down, the unravelling problem is reduced. Consequently, *stare decisis* is more likely to evolve when judges are granted life tenure.

B. Predicted Strength of Stare Decisis

Assuming, then, that the model accurately predicts the existence of *stare decisis*, does it predict that *stare decisis* will constrain the judges' decision-making in any way? First, the model predicts that when a judge is setting a precedent he will set his holding narrower than the language in the opinion, in part to enable more effective enforcement of his precedents. Furthermore, it predicts that a judge will write narrower holdings when he is writing controversial opinions. Thus, the model predicts that a judge will be constrained in setting precedents.

With respect to following precedents, the model predicts that judges will be constrained to follow precedents so long as they utilize an effective enforcement mechanism. Unlike the model, however, in actual practice judges can recharacterize issues⁷³ and characterize facts⁷⁴ to produce the outcomes they desire. It might be argued, then, that these techniques can be used to circumvent

⁷² To illustrate, suppose Ann and Bert are appointed for a fixed term consisting of three periods. In period 3, the judges will not follow each other's disagreeable precedents because neither judge has a future opportunity to punish defections. Without a threat of punishment, each judge has no incentive to follow those precedents with which the judge disagrees. If each judge knows in period 2 that his or her precedents will be disregarded in period 3, then the judges have no incentive to follow each other's precedents in period 2 because there will be no future benefits to their agreement. Similarly, if the judges know in period 1 that their precedents will be disregarded in period 2 and 3, then they will not create a *stare decisis* agreement in period 1.

⁷³ For example, in *Levy v. Daniels' U-Drive Auto Renting Co.*, 143 A. 163 (1928), plaintiff was injured by a defendant who, like plaintiff, was driving negligently. The plaintiff brought a tort action, but under applicable choice of law principles the law of Massachusetts, which would not allow recovery, would apply to the action. Rather than leave one of its citizens uncompensated, the Connecticut court characterized the issue as one of contract so that it could apply Connecticut law, which would therefore allow the plaintiff to recover for his injuries. Because a Connecticut statute provided that an injured plaintiff could sue the renter of the motor vehicle for damages, the court found that the right to recovery became part of the plaintiff's contract with the lessor of the car. Consequently, the plaintiff could hold the lessor liable under Connecticut law.

⁷⁴ See Anthony D'Amato, *Legal Uncertainty*, 71 CAL. L. REV. 1, 21 (1983) ("By selecting and emphasizing certain facts that comport with the result the court wants to reach, judges have considerable leeway to distinguish the case from unwanted precedent.") (footnote omitted).

precedents altogether. The number of cases in which issues can be effectively recharacterized is limited, however. Most of the time a recharacterization will seem artificial,⁷⁵ and its artificiality is an indication of defection that will not go unpunished by a shrewd judge. An appellate judge is somewhat constrained in his ability to characterize the facts of a case as well because the trial court does most of the fact-finding.⁷⁶ In addition, dissenting judges are quick to point out where the majority has failed to characterize the facts of a case fairly.⁷⁷ Such dissenting comments are likewise indications of defections. The judge who set the precedent has the ability to punish these attempts to recharacterize the facts. Thus, while problems of characterization and recharacterization will tend to weaken the constraining ability of *stare decisis*, they should not eliminate it altogether.

In practice the precise terms of a *stare decisis* agreement must be implicit rather than explicit. It is sheer folly to believe that judges actually meet, agree on what will be considered excessive defection, and prescribe an appropriate punishment to enforce their agreement. Their interactions are probably more volatile in practice than the model predicts as a result of the uncertainty associated with implicit agreement. Nevertheless, judges often accord less respect to the opinions of their renegade colleagues, and regularly express disapproval of those judges who ignore or reject precedents. In short, judges clearly can and do take measures to preserve *stare decisis*, and although their enforcement is often imperfect, judges seem to be more constrained by their colleagues than by external pressures to respect precedents.

The model also implicitly predicts that *stare decisis* will have less force in courts with many judges than it will in courts with fewer judges. The judges' interaction closely resembles cartel behavior because, like cartel members, the judges are attempting to enforce an agreement over a long period of time without the benefit of

⁷⁵ The *Levy* case, discussed *supra* note 73, is one example.

⁷⁶ Indeed, an appellate judge generally must give great deference to the trial court's finding of fact. See FED. R. Civ. P. 52(a) ("Findings of fact . . . shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of the witnesses."). See generally WRIGHT, *supra* note 59, at 647-51. Deference makes it easier for appellate judges to enforce horizontal *stare decisis*.

⁷⁷ See, e.g., *Colorado v. Bertine*, 479 U.S. 367, 378-79 (1986) (Marshall, J., dissenting) (the majority finding that police search was conducted according to standardized criteria is "flatly contradicted by the record"); *Darden v. Wainright*, 477 U.S. 168, 189 (1986) (Blackmun, J., dissenting) ("The Court's discussion of [defendant's] claim of prosecutorial misconduct is noteworthy for its omissions.").

legal recourse. Cartels are commonly understood to have an optimal membership size, beyond which effective collusion becomes much harder to maintain. The same is likely to be true for judges: it may be harder to monitor the decision-making behavior of many judges than it is to monitor the behavior of only a few. Moreover, perhaps the likelihood of inadvertent conflicts is greater within a court with more judges.⁷⁸ If, in fact, *stare decisis* does tend to be weaker in large courts, then the cartel view of *stare decisis* may be a richer analytic tool. Empirical research on this phenomenon would therefore be useful.⁷⁹

C. Other Predicted Features of Judicial Decision-making

One interesting prediction of the model is that where precedents are not being followed, the panel's desire to circumvent the precedent is only one possible explanation for why the precedent was not followed. Perhaps the precedent was violated because this panel is punishing its author for failing to adhere to *stare decisis* previously. Under this explanation, the precedent is being violated in an effort to strengthen *stare decisis* rather than weaken it.

The model also predicts that the constraining ability of some of a judge's precedents will tend to wane as he approaches retirement. Thus, we would expect an increase in the narrowing or overturning of precedents when the replacement of an appellate judge represents a shift in the balance of normative views within the circuit. If representation of the judge's views retire with him, his precedent would certainly be replaced.⁸⁰ In addition, the model also

⁷⁸ See Edward M. Wise, *The Legal Culture of Troglodytes: Conflicts Between Panels of the Court of Appeals*, 37 WAYNE L. REV. 313, 316-17 (1991) (inter-panel conflicts more likely on larger appellate courts).

⁷⁹ Many believe that the Ninth Circuit, because of its large size, produces a disproportionate number of inconsistent decisions:

The Ninth Circuit extends over nine states and two territories, and generates almost one-sixth of all appeals in the twelve regional circuits. In a single year, the court of appeals will adjudicate nearly 2,500 cases and will publish as many as 900 precedential opinions. The decisions are made by twenty-five active judges, ten senior judges, and a long parade of visiting judges—almost invariably sitting in panels of three. The court of appeals has embarked on an ambitious program to maintain consistency in its decisions, but among lawyers and district judges, the perception is widespread that inconsistency remains a major problem.

Hellman, *supra* note 70, at 543 (footnotes omitted). While Hellman attempted to determine the prevalence of intracircuit conflict in the Ninth Circuit, he did not compare the frequency of conflict in it with the frequency found in smaller circuits.

⁸⁰ This prediction appears to comport with reality. Cf. Douglas, *supra* note 3, at 736 ("When only one new judge is appointed during a short period, the unsettling effect in constitutional law may not be great. But when a majority of the Court is

predicts increased litigation as this change approaches. Empirical research on this phenomenon is also recommended.

One might wonder, then, why courts ever cite very old precedents in their opinions. If *stare decisis* is really an effort by judges to avoid punishment by convincing each other that they are not violating their colleagues' precedents, why do they continue to cite opinions by judges who are not their colleagues? My view is that they are providing information: they are communicating to other judges, and to the society, that they embrace not only the views of their colleagues, but also the views expressed in earlier opinions. Consistent with the model, however, judges cite recent opinions by colleagues much more often than they cite older opinions.⁸¹

CONCLUSION

Although *stare decisis* is traditionally viewed as a rule that society places on judges in an effort to constrain an often politically unaccountable institution, it is more likely that *stare decisis* will exist even if society is indifferent to whether judges respect precedent. Judges will adopt *stare decisis* because it is in their interests to do so, for each judge can protect his net ability to impose his normative views on society while eliminating the docket congestion which results from nonproductive competition among the judges. In addition, while external agents can enforce *stare decisis*, the judges possess some ability to enforce adherence to their precedents even without external constraints. In an important sense, then, the reams of paper spent defending and criticizing *stare decisis* on the ground that on net it is either socially beneficial or deleterious have missed the point. *Stare decisis* exists to some extent because the judges are better off with it. Whether we approve or disapprove is largely irrelevant, unless we alter the incentives faced by judges through institutional reform.

suddenly reconstituted, there is likely to be substantial unsettlement."); Lewis F. Powell, Jr., *Stare Decisis and Judicial Restraint*, 47 WASH. & LEE L. REV. 281, 284 (1990) ("In its long history, the presence on the Court of even a single new member often brings change.").

⁸¹ See Landes & Posner, *supra* note 3, at 254 n.9 (average age of cited court of appeals cases is 5.8 years, and oldest court of appeals decision in 261-citation sample was 50 years old).